IN THE DESCRIPTION   **Application No. 09/839,074**

~~Television~~ Audio/Video Program-Related ~~Coupon~~ Content Hyperlink

System

FIELD OF THE INVENTION

This invention relates to the field of ~~distribution of~~ accessing remotely

located content ~~coupons~~ associated with ~~a video or~~ audio or video program

material. In particular, the invention relates to the field of ~~using the Internet~~

~~to distribute~~ activating hyperlinks to remotely located content ~~coupons~~

associated with ~~a video or~~ audio or video program material.

BACKGROUND OF THE INVENTION

Remotely located content associated with audio or video program

material may be of a non-commercial or commercial nature. Such content

associated with commercial program material such as an advertisement may

be a web coupon for advertised merchandise.

Vendors advertising in newspapers often provide coupons on

merchandise for sale as enticements to draw members of the public into

retail outlets. Said vendors, advertising or otherwise marketing merchandise

in ~~video or~~ audio or video ~~programs~~ program material, may electronically

distribute coupons via the program signals representative of such program

material.

Several prior art systems teach distributing coupons via interactive

television. See, for example, Nemirofsky, U.S. Pat. No. 5,907,350, Jones, et

al, U.S. Pat. No. 5,978,013, Walkingshaw, et al, U.S. Pat. No. 5,488,423 and

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Mankovitz, et al, U.S. Pat. No. 5,523,794, which are incorporated herein by reference. Said prior art systems, however, fail to provide efficient means for said vendors to enter and/or transmit program-related coupon information. By transmitting the entire coupon itself via the television signal rather than, for example, just the URL to a web page to access the coupon, said prior art systems necessitate higher bandwidth or television data capacity ~~to transmit~~ <u>for transmission</u> and thereby incur greater cost.

Further, said prior art systems do not combine vendor coupon <u>hyperlink</u> information entry and interactive television with the Internet to ~~assist in entering and distributing~~ <u>facilitate viewer web</u> coupon ~~information~~ <u>access</u>. As demonstrated herein, web technology can facilitate ~~such~~ <u>access to remotely located program-related content</u> ~~coupon information entry and distribution~~. Thus, the problem with the prior art is twofold: excessive television data capacity and failure to employ the Internet to enhance vendor entry and distribution of program-related ~~coupon~~ <u>content hyperlink</u> information.

SUMMARY AND OBJECTS OF THE INVENTION

The instant invention solves said twofold problem in prior art systems first by transmitting via the ~~video or~~ audio <u>or video</u> program signal the <u>hyperlink address such as</u> URL to a web page having <u>program-related</u> content ~~a coupon~~ rather than the entire <u>content</u> ~~coupon~~ itself. Second, the instant invention brings the vast resources of the World Wide Web to facilitate vendor entry of program-related ~~coupon~~ <u>content hyperlink address</u>

and activation information ~~and integrates program-related URL receiving with Internet access to hyperlink to coupon web page~~. The term "coupon" is defined herein expansively, for example as in Engel, et al, Pat. No. 5,907,830, which is incorporated herein by reference, to include any paper or electronic certificate used to obtain anything of interest to a potential consumer such as special pricing, a discount, money, a ticket, samples or additional product, premiums, rebates or any other thing of value or interest.

One object of the invention is to transmit a ~~coupon~~ an hyperlink ~~web page URL~~ address to remotely located content related to program material rather than the ~~coupon~~ content itself with ~~a~~ the program signal.

Another object of the invention is to use the Internet to enhance ~~coupon~~ program-related content hyperlink information entry and distribution in ~~interactive television/radio~~ audio/video systems having ~~remotely located~~ program-related content located at a predetermined hyperlink address.

A related object of the invention is to deploy a website for ~~vendor~~ advertiser/programmer entry of program-related ~~coupon~~ content hyperlink information ~~and~~ to ~~generating~~ generate ~~a coupon URL~~ an hyperlink address string incorporating such information.

Yet another object of the invention is to connect ~~television and radio~~ audio/video program listeners/viewers with ~~to a web page to access~~ program-related ~~coupon~~ content located at a predetermined hyperlink address through user-activated or automatic hyperlink activation during the playing of associated program material.

Additional objects will be apparent from the following detailed description.

BRIEF DESCRIPTION OF THE DRAWINGS

The features and advantages of the present invention can be understood by reference to the detailed description of the preferred embodiments set forth below taken with the drawings, in which:

FIG. 1 is the system of the present invention.

FIG. 2 is an URL string that may be generated in the present invention.

DETAILED DESCRIPTION OF THE INVENTION

I. ~~WEBSITE~~ STRING GENERATION

Referring to the Drawing ~~FIG.~~ FIG. ~~2~~ 1, TELEVISION FACILITY COMPUTER 12 may access WEBSITE 1 via PUBLIC/PRIVATE LINK 4, which may be the public switched telephone network, an integrated digital network or similar wire or wireless facility, to encode an advertisement or non-commercial program material with an hyperlink address string such as an URL string including an hyperlink address 6 such as an URL to a web page having program-related content 35 such as at least one coupon related to said advertisement or non-commercial program material and ~~text identifying said at least one coupon~~ an attribute for user-activated or automatic hyperlink activation. While the ~~Drawing~~ Drawings and system description herein are substantially specific to television facilities, it is understood that such specification is for illustrative purposes only and the ~~Drawing~~ Drawings and system description apply equally to broadcast, cable,

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satellite and Internet television and radio facilities and any ~~video or~~ audio <u>or</u> <u>video</u> recording medium.

Initially upon accessing WEBSITE 1, TELEVISION FACILITY may enter as date/time attribute 7 the end date/time <u>for program material such as</u> said advertisement to indicate when said URL will no longer be valid. In addition to encouraging ~~viewers/listeners~~ <u>listeners/viewers</u> to return to ~~video/audio~~ <u>audio/video</u> programming after an advertisement-related coupon hyperlink, setting date/time attribute 7 to the advertisement end date/time effectively limits one coupon per ~~viewer/listener~~ <u>listener/viewer</u> due to practical time limitations after printing a first coupon off WEB PAGE 35.

Next via WEBSITE 1 data entering means, TELEVISION FACILITY may search DATABASE 2 of brand names and associated URLs to coupon web pages (each located as INDIVIDUAL WEB PAGE 4 at WEBSITE 1 or at the brand name website) to select a brand name scheduled to be advertised in said advertisement. Said brand names and associated URLs may be listed in DATABASE 2 by product/service category and subcategory, key word/phrase and alphabetically. When a brand name is selected, the associated URL <u>6</u> to the web page having at least one brand name coupon may be automatically entered in said URL string and<u>, for said</u> <u>user-activated hyperlink activation,</u> the text "[Brand Name] Coupon", using the selected brand name, may be automatically generated in said URL string as ~~said~~ text <u>9</u> identifying said at least one coupon related to said

advertisement. TELEVISION FACILITY may alternatively directly enter via ~~said data entering means~~ COMPUTER 12 a brand name of interest and/or an associated URL 6 to a web page having at least one brand name coupon and, for said user-activated hyperlink activation, said text 9 identifying said at least one coupon related to said advertisement without selecting said brand name from DATABASE 2.

For said automatic hyperlink activation, TELEVISION FACILITY may enter via COMPUTER 12 at least one advertisement/hyperlink activation start date/time as demonstrated in appended **Appendix** pages 27-33. From entered hyperlink activation data including

A) predetermined user-activation data for said user-activated hyperlink activation and, optionally, said text to prompt user-activating, to hyperlink to a predetermined hyperlink address having content 35 related to predetermined program material or

B) predetermined automatic activation data for said automatic hyperlink activation and, optionally, said hyperlink activation start date/time,

a respective attribute for user-activated or automatic hyperlink activation may be generated.

Said URL string may be generated for VBI, Line 21 ("Transport Type A") and resource data and trigger ("Transport Type B") transmission using the EIA-746Astandard as specified in ~~w ww.atvef.com/ library/spec1 1a.html~~ http://www.atvef.com/library/spec1_1a.html, which is incorporated herein by reference. Said EIA-746A standard provides both

television operators and receiver manufacturers a common means for delivering URLs associated with a commercial or other program, using the same television transmit channel used for closed captioning, thereby making said URLs available virtually everywhere television programming is received and enabling the use of closed captioning tools to encode and broadcast the URLs. The system disclosed herein supports both Transport Type A and Transport Type B, as well as other equivalent, triggers.

~~Via~~ Specifically, via generating means WEBSITE 1 may generate 5 ~~an~~ said URL string including said selected URL, ~~<w w w.text-2.com/coupon.asp?Brand Name>6,~~ <www.text-2.com/coupon.asp?Brand Name>6, the entered date/time attribute, [e:yyyymmddThhmmss] 7 to indicate the ending date (on the left side of "T") and time (on the right side of "T") that the URL associated with said advertisement is to be valid – for example, the advertisement end date/time, and, A) for user-activated hyperlink activation, [n:Brand Name Coupon] 9 to display as text identifying said at least one coupon to prompt a ~~viewer or~~ listener or viewer to activate a program-related URL 6 hyperlink to coupon WEB PAGE 35 or, B) for automatic hyperlink activation, [auto:true] (NOT SHOWN) for WebTV TM Receiver to automatically load an interactive television link and [time:yyyymmddThhmmss] (NOT SHOWN), an hyperlink start date/time attribute detected by WebTV TM Receiver. Optionally, said URL string may further comprise [t:a] 8 indicating the program type is an advertisement, [v: 1] 10 indicating the URL content is ATVEF compliant and a checksum 11

for error detection/correction. Additional attributes that may be coded in said URL string include [s:string] (NOT SHOWN), a script attribute, ~~[auto:true] (NOT SHOWN)for WebTV ™ Receiver to automatically load an interactive television link,~~ and [showPIP:true] (NOT SHOWN) so a picture-in-picture video appears in a target web page on WebTV ™ Receiver ~~and [time:yyyymmddThhmmss] (NOTSHOWN), an hyperlink start date/time attribute detected by WebTV ™ Receiver~~.

In one preferred embodiment disclosed herein, said ~~data entering~~ database means and generating means may comprise website means, WEBSITE 1. ~~Alternatively~~ In said embodiment, said data entering means ~~and generating means~~ may comprise client computer means, ~~i.e.~~ COMPUTER 12.

WEBSITE 1 may then output said URL string to either AUDIO FREQUENCY ENCODING DEVICE 16 to encode said URL string for transmission via program audio channel data transmission means or download said URL string to program signal transmitting means. AUDIO FREQUENCY ENCODING DEVICE 16 may inaudibly embed said URL string in the program audio itself. Audio frequency encoded data signals may then be fed from AUDIO FREQUENCY ENCODING DEVICE 16 to RECORDER 17 and onto STORAGE MEDIUM 18, or, alternatively, sent through AUDIO TRANSMISSION LINK 19 (such as a network program distribution system) to MIXER 15 located at TELEVISION FACILITY to be mixed in with program audio signals. STORAGE MEDIUM 18 may be

sent to TELEVISION FACILITY for later playback via PLAYBACK DEVICE 20.

Said URL string may be downloaded via PUBLIC/PRIVATE LINK 4 to TELEVISION FACILITY to be processed and transmitted via TELEVISION DATA TRANSMISSION LINK 21 at appropriate times in conjunction with transmission of associated program signals. Downloaded via PUBLIC/PRIVATE LINK 4, COMPUTER 12 may then output said URL string to DATA ENCODING DEVICE 13 to encode said URL string for transmission via conventional program data channel means such as VBI, MPEG, subcarrier, etc. In the alternative, COMPUTER 12 may output said URL string to DATA ENCODING DEVICE 14 to encode said URL string for transmission via program audio channel means (i.e. embedding in program audio signals via MIXER 15). In one preferred embodiment herein, said URL string for television programs may be encoded for transmission via VBI, Line 21 pursuant to said EIA-746A standard.

~~Website including~~ HTML code demonstrating one embodiment of said system ~~website means~~ is provided below in **Appendix**, which is incorporated by reference. Specifically, **Appendix** demonstrates, respectively, WEBSITE 1 data entering means <u>12</u> searching by product/service category and subcategory, key word or phrase and alphabetically and selecting a brand name for an associated brand name coupon web page URL <u>and, optionally, text</u> to be entered (3 pages of code, 11-13), ~~and entering~~ <u>WEBSITE 1 displaying at least one entered start/end</u>

date/time for program-related content hyperlink activation/deactivation date/time attributes (5 pages of code, 14-18) and WEBSITE 1 entering means entering hyperlink URL and activation data including text for user-activated hyperlink activation and hyperlink activation start date/time information for automatically activated hyperlink activation and generating means generating the URL string (29 pages of code, 19-47) .

II. APPARATUS

The apparatus receiving said hyperlink address string claimed herein, a program signal receiver apparatus, is tied to and dependant upon said data entering means, database means and generating means. Indeed, said apparatus is dependant on said data entering, database and generating means to receive a program-related content hyperlink address coupon web pageURL and text identifying the program-related coupon an attribute for user-activated or automatic hyperlink activation for said program signal receiver apparatus to play program material including predetermined program material related to predetermined content 35 located at a predetermined hyperlink address and, during the playing of said predetermined program material, activate an hyperlink to said predetermined hyperlink address via user-activated or automatic hyperlink activation.

Referring to the Drawing **FIG. 1**, TELEVISION TUNER 22 may receive said URL string transmitted via TELEVISION DATA TRANSMISSION LINK 21. Said program signal receiving means receiver apparatus may comprise any video or audio or video program receiver means such as

broadcast, cable or satellite television or radio tuner means, the WebTV TM

Internet Terminal available from Microsoft Corporation Redmond, WA or

WebTV Networks Inc., Palo Alto, CA, set-top box means, Internet program

signal receiver means or other program signal receiver means. In another

embodiment, said program signal receiving means may comprise storage

medium means such as ~~video or~~ audio or video recorder or media player

means.

Via DATA INPUT/OUTPUT 23, said URL string may be input to

MICROPROCESSOR 24 (which may comprise any conventional data

processor, microprocessor, central processing unit or equivalent data

processing means). ROM 25 may store the program of instructions which

controls MICROPROCESSOR 24. MICROPROCESSOR 24 may then

route URL 6 via BUS 27 to be temporarily stored in RAM 28, route

[n:Brand Name Coupon] 9 via INTERFACE DEVICE 29 to be displayed as

non-hypertext or, optionally, "hyperlink text" via LCD 30 and detect the

URL expiration date/time from [e:yyyymmddThhmmss] 7, the type of

Internet content URL 6 is associated with from [t:a] 8 (an advertising

sponsor) and that the associated Internet content is ATVEF compliant from

[v:1] 10. The term "hyperlink text" as used herein encompasses the meaning

including hypertext conferred thereon in Boden, et al, Pat. No. 5,930,512,

Nielsen, Pat. No. 6,199,071, Carroll, et al, Pat. No. 6,154,205 and Kato, Pat.

No. 5,809,512, which are incorporated herein by reference.

In one preferred embodiment, date/time attribute 7 may be detected

and compared by comparing means with current date/time information from DATE/TIME CLOCK 26 first before one or more other attributes in said URL string is processed to ascertain first if said URL remains valid. DATE/TIME CLOCK 26 and/or said comparing means may be remote from or built-into said apparatus such as disclosed in Danneels, U.S. Pat. No. 5,602,992 or Maturi, et al, U.S. Pat. No. 5,559,999, which are incorporated herein by reference.

Hyperlink to WEB PAGE 35 may be user-activated via PUSHBUTTON 31. Visual display means such as LCD 30 may be used to alert an user that user activation of said hyperlink is available to be made. LCD 30, for example, may visually display "[Brand Name] Coupon" as text or, optionally, hypertext from [n:Brand Name Coupon] 9 to inform viewers that an hyperlink to coupon WEB PAGE 35 is available. In the WebTV TM Internet Terminal embodiment disclosed herein, LCD 30 may comprise a drop down panel that displays said text. Date/time attribute 7, in addition to indicating when program-related URL 6 is no longer valid, may specify a stop display time as well so that said display coincides with the time when coupon WEB PAGE 35 is available to be accessed.

LED or equivalent visual display means rather than LCD 30 may be used as said visual display means. In addition, user activation means other than PUSHBUTTON 31 may be used such as keypad or VRU. Activating PUSHBUTTON 31, directly or via remote control, may send a control signal to MICROPROCESSOR 24, which, in turn, may instruct RAM 28 to

output the stored URL 6 via BUS 32 to MEMORY OUTPUT 33.

Both LCD 30 and PUSHBUTTON 31 may be built into a conventional remote control unit, such as that disclosed in Yazolino, et al, Pat. No. 5,329,379, which is incorporated herein by reference, and communicably coupled to MICROPROCESSOR 24. INTERFACE DEVICE 29 may then connect to a conventional two-way infrared (IR) link coupled to said remote control unit to send and receive control signals. If said URL string includes [auto:true] (NOT SHOWN) for WebTV TM Receiver to automatically load an interactive television link and [time:yyyymmddThhmmss] (NOT SHOWN), an hyperlink start date/time attribute detected by WebTV TM Receiver, the hyperlink to WEB PAGE 35 may be automatically activated responsive to said respective hyperlink automatic load or hyperlink start time attribute.

Upon said user-activated or automatic activation, an hyperlink to WEB PAGE 35 may be established via TELEVISION/CLIENT BROWSER (NOT SHOWN). COUPON 36 may then be printed, optionally without user activation pursuant to, for example, an HTML instruction included in said URL string, via WebTV TM PRINTER (NOT SHOWN) at COMMUNICATIONS DEVICE 34. In another embodiment disclosed herein, a SMART CARD (NOT SHOWN) as disclosed in Britt, Jr., Pat. No. 6,141,678, White, et al, Pat. No. 4,119,114 and Nemirofsky, Pat. No. 5,907,350, which are incorporated herein by reference, may be coupled to COMMUNICATIONS DEVICE 34 to receive redeemable coupons.

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LINK CONTROLLER 37 may serve as an ~~hyperlink~~ <u>automatic hyperlink</u> ~~de-activator~~ <u>deactivator</u>. ~~For example,~~ LINK CONTROLLER 37 may automatically ~~de-activate~~ <u>deactivate</u> an advertisement-related hyperlink to an advertising brand name coupon WEB PAGE 35 when the advertisement ends, e.g. the date/time specified by URL date/time attribute 7. In said embodiment [e:yyyymmddThhmmss] 7 may reference an automatic hyperlink ~~de-activate~~ <u>deactivate</u> HTML instruction. In one embodiment herein, said hyperlink may be ~~de-activated~~ <u>deactivated</u> via LINK CONTROLLER 37 as the WebTV ™ client disclosed in Perlman, et al, Pat. No. 5,896,444, which is incorporated herein by reference, terminates communication with a server.

Clearly, numerous modifications and variations of the instant invention are possible in light of the above teachings. It is therefore understood that, within the scope and spirit of the claims made herein, the invention may be practiced otherwise than as specifically described herein and the invention may be modified in arrangement and detail without departing from such scope and spirit.